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	Application Number	10/810,232
	Filing Date	March 26, 2004
TRANSMITTAL FORM	First Named Inventor	Ryan Rifkin
(to be used for all correspondence during pendency of filed application)	Group Art Unit Number	2641
	Examiner Name	Not Yet Known
Total Number of Pages in This Submission **7***	Attorney Docket Number	23085-07809

ENCLOSURES *(check all that apply)*

☐ Fee Transmittal Form (in duplicate)	☐ Issue Fee Transmittal
☐ Check Enclosed	☐ Letter to Chief Draftsperson
☒ Return Receipt Postcard	☐ Formal Drawing(s):
☐ Response to Notice to File Missing Parts	[ ] Sheet(s) of Figure(s) [ ]
☐ Assignment & Recordation Cover Sheet	☐ Appeal Communication to Board of Appeals and Interferences
☐ Declaration	
☐ Power of Attorney	☐ Appeal Communication to Group *(Appeal Notice, Brief, Reply Brief)*
☐ Application Data Sheet	
☒ Information Disclosure Statement & PTO/SB/08A	☐ Certified Copy of Priority Document(s)
☒ Copies of IDS Cited References	☐ After Allowance Communication to Group
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SIGNATURE OF ATTORNEY OR AGENT

Signature:	*[signature]*		
Attorney/Reg. No.:	Hector J. Ribera/Reg. No. 54,397	Dated:	10/25/2004

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Signature:	*[signature]*		
Typed or Printed Name:	Hector J. Ribera	Dated:	10/25/2004
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23085/07809/DOCS/1469352.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Ryan Rifkin

APPLICATION NO.: 10/810,232

FILING DATE: March 26, 2004

TITLE: Speaker Recognition Using Local Models

EXAMINER: Not Yet Known

GROUP ART UNIT: 2641

ATTY. DKT. NO.: 23085-07809

CERTIFICATE OF MAILING

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Hector J. Ribera, Reg. No.: 54,397

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P.O. BOX 1450
ALEXANDRIA, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT
Under 37 CFR §§ 1.56 and 1.97-98

SIR:

Pursuant to the provisions of 37 CFR §§ 1.56 and 1.97-98, enclosed herewith is modified form PTO/SB/08A listing references for consideration by the Examiner.

The filing of this Information Disclosure Statement shall not be construed as a representation regarding the completeness of the list of references, or that inclusion of a reference in this list is an admission that it is prior art or is pertinent to this application, or that a search has been made, or as an admission that the information listed is, or may be considered to be, material to patentability, or that no other material information exists, and shall not be construed as an admission against interest in any manner.

This Information Disclosure Statement is being filed:

☒ within three months of the filing date of the application, or date of entry into the national stage of an international application, or before the mailing date of a first office action on the merits, whichever event last occurred;

☐ before the mailing of a first official action after the filing of a request for continued examination (RCE) under 37 CFR § 1.114;

☐ after three months of the filing date of this national application or the date of entry of the national stage in an international application, or after the mailing

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date of the first official action on the merits, whichever event last occurred, but before the mailing date of the first to occur of either: (1) a final action under 37 CFR §1.113; or (2) an action that otherwise closes prosecution in the application, and:

☐ attached hereto is the fee set forth under 37 CFR §1.17(p) for submission of this Information Disclosure Statement under 37 CFR.§ 1.97(c); OR

☐ Applicant certifies pursuant to 37 CFR § 1.97(e) that:

    ☐ each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement; OR

    ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated under 37 CFR § 1.56(c) more than three months prior to the filing of this Statement;

☐ on or before the payment of the issue fee but after the mailing date of the first to occur of either: (1) a final action under 37 CFR § 1.113; (2) a notice of allowance under 37 CFR § 1.311; or (3) an action that otherwise closes prosecution in the application, and:

☐ Applicant certifies pursuant to 37 CFR. § 1.97(e) that:

    ☐ each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement;

    ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated

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under 37 CFR § 1.56(c) more than three months prior to the filing of this Statement; AND

☐   attached hereto is the fee set forth under 37 CFR §1.17(p) for submission of this Information Disclosure Statement under 37 CFR.§ 1.97(c); OR

☐   after the payment of the issue fee. Applicant requests that the information contained in this Information Disclosure Statement be placed in the file according to 37 CFR § 1.97(i), although the information may not be considered by the USPTO.

☐   Enclosed is a copy of each listed reference that may be material to the examination of this application, and for which there may be a duty to disclose.

☐   This application relies, under 35 U.S.C. § 120, on the earlier filing date of prior application No. _____ , filed on _____ , and the references cited therein are hereby referenced, but are not required to be provided in this application under 37 CFR § 1.98(d).

☒   This application was filed after June 30, 2003. Therefore, pursuant to the waiver of the requirements under 37 CFR 1.98(a)(2)(i), copies of each U.S. Patent and each U.S. Patent Application Publication are not required to be submitted. Copies of any foreign patent documents and non-patent literature cited herein are enclosed.

☐   Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application, and the communication was not received by any individual designated in 37 CFR § 1.56(c) more than thirty days prior to the filing of this Information Disclosure Statement. 37 CFR § 1.704(d).

☒   Applicant submits that no fee is required for the consideration of this Information Disclosure Statement.

Consideration of the listed references and favorable action are solicited.

Respectfully submitted,
RYAN RIFKIN

Dated: _October 25, 2004_   By: _____

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Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application No.	10/810,232
				Filing Date	March 26, 2004
				First Named Inventor	Ryan Rifkin
				Art Unit	2641
				Examiner Name	Not Yet Known
Sheet	1	of	3	Attorney Docket Number	23085-07809

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document No. Number – Kind Code[2] (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		US-		
		US-		

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3] – Number[4] Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T[6]

OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T[6]
	C1	Douglas A. Reynolds, "Automatic speaker recognition using gaussian mixture models," *The Lincoln Laboratory Journal*, vol. 8, no. 2, pp. 173-912, 1975.	
	C2	Kevin R. Farrell, Richard J. Mammone, and Khaled T. Assaleh, "Speaker recognition using neural networks and conventional classifiers," *IEEE Transactions on Speech and Audio Processing*, vol. 2, no. 1, pp. 194-205, 1994.	
	C3	Nathan Smith and Mahesan Niranjan, "Data-dependant kernels in SVM classification of speech patterns," Tech. Rep. CUED/FINFENG/TR.387, Cambridge University Engineering Department, 2001, 4 pages	
	C4	William M. Campbell and Khaled T. Assaleh, "Polynomial classifier techniques for speaker verification," in *Proceedings of the International Conference on Acoustics, Speech, and Signal Processing*, 1999, pp. 321-324.	

Examiner Signature		Date Considered	

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Substitute for form 1449A/PTO	Complete if Known	
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	Filing Date	March 26, 2004
	First Named Inventor	Ryan Rifkin
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	Examiner Name	Not Yet Known
Sheet 2 of 3	Attorney Docket Number	23085-07809

OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T[6]
	C5	William M. Campbell, "Generalized linear discriminant sequence kernels for speaker recognition," in *Proceedings of the International Conference on Acoustics, Speech, and Signal Processing*, 2002.	
	C6	E. Parzen, "On estimation of a probability density function and mode," *Annals of Mathematical Statistics*, vol. 33, pp. 1065-1076, 1762.	
	C7	Vladimir N. Vapnik, *Statistical Learning Theory*, John Wiley & Sons, 1998, pp. 308-315; 401-412; 421-425; 430-434; 484-496.	
	C8	Ryan M. Rifkin, *Everything Old Is New Again: A Fresh Look at Historical Approaches to Machine Learning*, Ph.D. thesis, Massachusetts Institute of Technology, 2002.	
	C9	Michael E. Tipping, "Sparse Bayesian learning and the relevance vector machine," *Journal of Machine Learning Research*, vol. 1, pp. 211-244, 2001	
	C10	Jerome H. Friedman, Jon Louis Bentley, and Raphael A. Finkel, "An algorithm for finding best matches in logarithmic expected time," *ACM Transactions on Mathematical Software*, vol. 3, no. 3, pp. 209-226, 1977.	
	C11	A. C. Yao and F.F. Yao, "A general approach to d-dimensional geometric queries," in *Proceedings of the 17th Annual ACM Symposium on the Theory of Computing*, 1985, pp. 163-168.	
	C12	K. L. Clarkson, "A randomized algorithm for closest-point queries," *Siam Journal on Computing*, vol. 17, no. 4, pp. 830-847, 1988.	
	C13	S. Meiser, "Point location in arrangements of hyperplanes," *Information and Computation*, vol. 106, no. 2, pp.286-303, 1993.	
	C14	R. L. Sproull, "Refinements to nearest-neighbor searching in k-dimensional trees," *Algorithmica*, vol. 6, pp. 579-589, 1991.	
	C15	P. Indyk and R. Motwani, "Approximate nearest neighbors: towards removing the curse of dimensionality," in *Proceedings of the 30th Annual ACM Symposium on the Theory of Computing*, 1998, pp. 604-613.	
	C16	Eyal Kushilevitz, Rafael Ostrovsky, and Yuval Rabani, "Efficient search for	

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	Art Unit	2641
	Examiner Name	Not Yet Known
Sheet 3 of 3	Attorney Docket Number	23085-07809

OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS			
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		approximate nearest neighbors in high dimensional spaces," in *Proceedings of the 30th Annual ACM Symposium on the Theory of Computing,* 1998, pp.614-623.	
	C17	Sunil Arya, David M. Mount, Nathan S. Netanyahu, Ruth Silverman, and Angela Y. Wu, "An optimal algorithm for approximate nearest neighbor searching in fixed dimensions," *Journal of the ACM,* vol. 45, pp. 891-923, 1998.	
	C18	David M. Mount, and S. Arya, "ANN: A Library for Approximate Nearest Neighbor Searching," 2nd Annual Fall Workshop on Computational Geometry (submitted) September 10, 1997	
	C19	George R. Doddington, Mark A. Przybocki, Alvin F. Martin, and Douglas A. Reynolds, "The NIST speaker recognition evaluation – overview, methodology, systems, results, perspective," *Speech Communication,* vol. 31, no. 2-3, pp. 225-254, 2000.	
	C20	Leon Bottou and Vladimir Vapnik, "Local learning algorithms," *Neural Computation,* vol. 4, pp. 888-900, 1992.	
	C21	V. Vapnik and L. Bottou, "Local algorithms for pattern recognition and dependencies estimation," *Neural Computation,* vol. 5, pp. 893-909, 1993.	
	C22	David M. Mount, "ANN: A Library for Approximate Nearest Neighbor Searching," Version 0.2 (Beta release) online at http://www.cs.umd.edu/~mount/ANN/ (June 24, 1998)	

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